

Agency: Commerce, Community and Economic Development**Grants to Named Recipients (AS 37.05.316)****Grant Recipient: Nordic Ski Club of Fairbanks****Federal Tax ID: 92-0096061****Project Title:****Project Type:** Information Systems and Technology

Nordic Ski Club of Fairbanks - Birch Hill Recreation Area Facilities Technology Upgrades

State Funding Requested: \$83,000**House District:** Fairbanks Areawide (7-11)

One-Time Need

Brief Project Description:

Purchase technology upgrades for the Birch Hill Recreation Area Facilities in preparation for the 2013 Junior Olympics and the 2014 Arctic Winter Games.

Funding Plan:

| | |
|-------------------------------|-------------------|
| Total Project Cost: | \$83,000 |
| Funding Already Secured: | (\$0) |
| FY2013 State Funding Request: | <u>(\$83,000)</u> |
| Project Deficit: | \$0 |

Detailed Project Description and Justification:

This specific request is for the purchase of new computer and network equipment for the purpose of upgrading and improving the NSCF's ability to efficiently manage club administrative and record keeping activities. The NSCF manages and maintains the winter Nordic ski activities on more than 1500 acres of the combined Birch Hill Recreation and Fort Wainwright Joint Use License Areas (the Birch Hill Complex) located in the Fairbanks North Star Borough near Fairbanks, Alaska. The NSCF (a community volunteer organization) is solely responsible (tasked) with handling an increasing number of users on an expanding number of trails and an escalating number of competitive and community events.

Attached are two documents that (1) show an aerial photograph of the Potential Physical Layout of the BHRA/NSCF Network Area, and (2) a basic network equipment component diagram of each building within the BHRA.

At the moment, the FNSB uses a microwave shot to replicate data to Birch Hill. A 'shed' is located at the bottom of the communications tower (at the top of the hill above the complex) and this is where the FNSB Computing Services currently has an EqualLogic and an R710 server for a limited business continuity solution. A current project has fiber optic cable being installed during the summer of 2012 from the base of this tower to the BHCCSC building. The NSCF and FNSB are working with ACS, AT&T and AlaskTel to secure high speed internet connectivity to this tower. The FNSB Computing Services has no plans to immediately stop using the microwave shot for data replication if this happens, but that could change in the future if they have access to high speed internet and the price is right. Some of this equipment will also allow the FNSB Computing Services division to improve the efficiency of the BHCCSC building to be used as their dedicated EMS Backup Command Headquarters. The building is currently designated as such, but the facility lacks the area network, fiber optic connections and firewall to allow for seamless operations in the event of a real emergency.

The NSCF would procure a router to accept the fiber optic connection in addition to 2 Ethernet ports, a 24-port gigabit switch, and a firewall (we are currently evaluating models, and will know which we want to go with shortly). These components would allow for secure data throughput and storage for both the FNSB and the NSCF at the BHRA.

The NSCF's needs involve the establishment of an area wide network for the buildings located at the BHRA. If you look at the aerial printout, you'll see that the distance between a many of the buildings is over the 100m limitation of Ethernet. Running fiber optic cable between buildings isn't a valid option, so the network solution between the buildings will need to rely on a combination of wireless access points and radio antennas.

In the different buildings, we want to hang monitors which would tie back to a PC (a minimum of one in each building) that would display weather and race information throughout the facility. These monitors could also be used for educational and instructional purposes. Most of these would be basic 20" size monitors with the exception of a 40"+ monitor in the assembly space and a 30"+ monitor in Rikke's Roadhouse. We want these mounted securely to the walls, potentially even being enclosed in secure cabinets to avoid theft (someone managed to steal a furnace from the facility a few years ago). We are also interested in a server and a small amount of storage (USB hard drive size) for basic backups and to receive video feeds from cameras deployed for races.

- The NSCF has been tasked with hosting an increasing number of important competitive racing events. The Senior National Championships (2008-2009), Junior Olympics/Nationals (2003, 2013), Arctic Winter Games (2014), ASAA State Championships (2002-05, 2009-11), Regional High School and Besh Cup_races are some of the weekly winter events regularly hosted at the Birch Hill Recreation Area. This schedule requires reliable, state-of-the-art technology equipment to maintain the quality of the event coverage. We believe the acquisition of the proposed technology upgrades will help the NSCF to maintain the high race management and reporting standards we are known for with respect to these events.

- Community and NSCF members will benefit from the technology upgrades. Recent years have resulted in increased club membership and use by elementary and middle schools directly busing their students to Birch Hill, as well as an increase in enrollment in the Junior and Adult Nordic programs offered by the NSCF. Our ability to provide up to date reliable and secure computerized record keeping, backups and competitive event tracking and streaming video are important aspects of our mission.

- On-going labor, operating and maintenance expenses will be provided by the NSCF.

- The project timeline calls for order placement with suppliers by July of 2012 with delivery to Fairbanks, Alaska by no later than November of 2012.

- Current Financial Statement and Balance Sheet Information for the Nordic Ski Club of Fairbanks is attached.

Included with this grant request:

- Grant Administrator Contact is: (Dave Bloom, club treasurer).
- Current Birch Hill/Ft Wainwright trails maps (from Parks & Rec).
- BHRA building complex aerial photo and network diagram.
- NSCF Board of Directors Technology Upgrades funding resolution.
- Current NSCF Financials and Balance Sheet information.
- Technology Upgrade Estimate (emailed from GCSIT , Inc. CEO John Powers).

- Letters of support from NSCF, FNSB P&R, Mayor's Office (emailed direct), Computing Services and John Estle.

Project Timeline:

FY13

Entity Responsible for the Ongoing Operation and Maintenance of this Project:

Fairbanks Nordic Ski Club

Grant Recipient Contact Information:

Name: Mike O'Brien
Title: President
Address: PO Box 80111
Fairbanks, Alaska 99708
Phone Number: (907)474-4242
Email: bjamieson@acsalaska.net

Has this project been through a public review process at the local level and is it a community priority? ☒ Yes ☐ No

NSCF Birch Hill Arctic Winter Games Project

Group 1-- Birch Hill Cross Country Ski Center - Assembly Space

| Quote items | | | | | Quote Estimat |
|-------------|--|---|--|---------|---------------|
| | | | | | |
| UPSTAIRS | | | | | |
| 1 | 2x Monitors | Monitor 1 | Live Video feed | 32 inch | \$ 800.00 |
| | | Monitor 2 | Scrolling weather and course conditions | 32inch | \$ 800.00 |
| 2 | Service Work Upstairs 2x Monitors | Install Monitors includes mounting and custom boxing and all cabling back to streaming media source/board | | | \$ 1,000.00 |
| 3 | 2X PC's to support individual connection to each monitor | | | | \$ 3,000.00 |
| 4 | see networking gear including antennae seperately in Group 5 | | | | |
| | | | | | |
| DOWNSTAIRS | | | | | |
| 1 | 5x Monitors | Monitor 1 | Scrolling Weather and course conditions same as Monitors 1-5 | 22inch | \$ 400.00 |
| | | Monitor 2 | Scrolling Weather and course conditions same as Monitors 1-5 | 22inch | \$ 400.00 |
| | | Monitor 3 | Scrolling Weather and course conditions same as Monitors 1-5 | 22inch | \$ 400.00 |
| | | Monitor 4 | Scrolling Weather and course conditions same as Monitors 1-5 | 22inch | \$ 400.00 |
| | | Monitor 5 | Scrolling Weather and course conditions same as Monitors 1-5 | 22inch | \$ 400.00 |
| 2 | Service Work Upstairs 5x Monitors | Install Monitors includes mounting and custom boxing and all cabling back to streaming media source/board | | | \$ 2,500.00 |
| 3 | 1X PC to support all five monitors | | | | \$ 1,500.00 |
| 4 | Video board | | | | \$ 1,500.00 |
| 5 | Implementation and testing of video board | | | | \$ 300.00 |
| 6 | see networking gear including antennae seperately in Group 5 | | | | |

Group 2-- Rikke's Roadhouse

| | | | | | |
|---|---|--|--------|--|-------------|
| 1 | 1x Monitor | | | | |
| | Monitor 1 | Scrolling Weather and course conditions AND Live Streaming video | 36inch | | \$ 900.00 |
| 2 | 1X PC to support video streaming monitor | | | | \$ 1,500.00 |
| 3 | Video board? | | | | \$ 1,500.00 |
| 4 | Implementation and testing of video board | | | | \$ 300.00 |

5 see networking gear including antennae seperately in Group 5

Group 3-- Old Equipment shed

| | | | | | |
|---|--|---|--|----|----------|
| 1 | 5x Monitors | | | | |
| | Monitor 1 | Scrolling Weather and course conditions AND Live Streaming video | | \$ | 400.00 |
| | Monitor 2 | Scrolling Weather and course conditions AND Live Streaming video | | \$ | 400.00 |
| | Monitor 3 | Scrolling Weather and course conditions AND Live Streaming video | | \$ | 400.00 |
| | Monitor 4 | Scrolling Weather and course conditions AND Live Streaming video | | \$ | 400.00 |
| | Monitor 5 | Scrolling Weather and course conditions AND Live Streaming video | | \$ | 400.00 |
| 2 | Service Work Upstairs 5x Monitors | Install Monitors includes mounting and custom boxing and all cabling back to streaming media source/board | | \$ | 2,500.00 |
| 3 | 1X PC to support all five monitors | | | \$ | 1,500.00 |
| 4 | Video board | | | \$ | 1,500.00 |
| 5 | Implementation and testing of video board | | | \$ | 300.00 |
| 6 | see networking gear including antennae seperately in Group 5 | | | | |

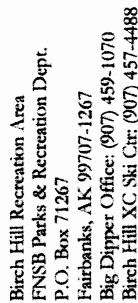
Group 4-- New Equipment Shed

| | | | | | |
|---|--|--|------|----|----------|
| 1 | 1x Monitors | | | | |
| | Monitor 1 | Scrolling Weather and course conditions AND Live Streaming video | 22in | \$ | 400.00 |
| 2 | Service Work Upstairs Monitor | Install Monitors include mounting and custom boxing and all cabling back to streaming media source/board | | \$ | 500.00 |
| 3 | 1X PC to support all five monitor | | | \$ | 1,500.00 |
| 4 | Video board | | | \$ | 1,500.00 |
| 5 | Implementation and testing of video board | | | \$ | 300.00 |
| 6 | see networking gear including antennae seperately in Group 5 | | | | |











Group 5-- Networking Gear and Wireless

| | | | | | |
|---|--|--|--|----|--------|
| 1 | 1x 580 Super AP - for lodge | | | \$ | 750.00 |
| 2 | 2x 550g Super AP -for timing buildingand for new equipment shed- | | | \$ | 500.00 |
| 3 | 1x 550g Super AP- for temp waxing area | | | \$ | 250.00 |
| 4 | 1x 550g Super AP for east end of lodge | | | \$ | 250.00 |

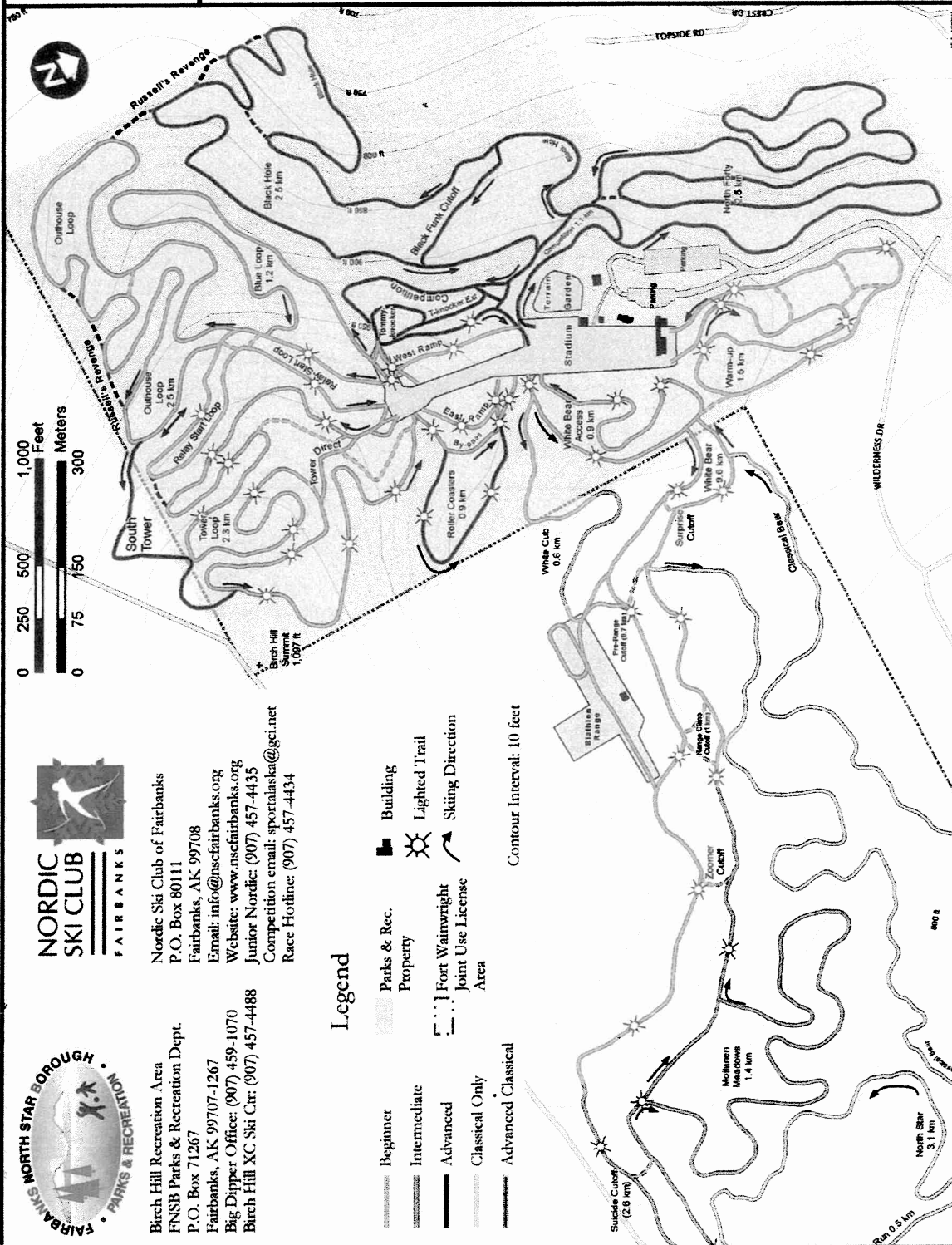
| | | |
|--|--|--------------|
| 5 | 5x ANT-120 Omnidirectional | \$ 500.00 |
| 6 | Power Supply | \$ 100.00 |
| 7 | 2x HP 10GB 2-port | \$ 1,700.00 |
| 8 | 2x HP X132 10G | \$ 3,500.00 |
| 9 | 1x HP 48 Port Switch | \$ 5,500.00 |
| Group 6-- Timing Building | | |
| 1 | 1x Monitor for Indoor outdoor- 60inch | \$ 2,500.00 |
| 2 | Service work to wake portable as well as Mounting and wireless or cabling to support streaming media and live video feed | \$ 1,200.00 |
| 3 | Video board | \$ 1,500.00 |
| 4 | Implementation and testing of video board | \$ 500.00 |
| 5 | 1xServer- R710 | \$ 7,500.00 |
| 6 | Direct Attach Storage for Offsite storage | \$ 1,500.00 |
| 6 | see networking gear including antennae seperately in Group 5 | |
| Group 7-- Offsite hosting for streaming media | | \$ 5,000.00 |
| Group 8-- New Sound system | | \$ 7,800.00 |
| Group 9 Miscellaneous Override 10% | | \$ 7,015.00 |
| Group 10 Engineering Override 3% | | \$ 2,104.00 |
| Group 11 Video Telecasting override 5% | | \$ 3,507.00 |
| Total | | \$ 82,776.00 |



Legend

-  Beginner
 Intermediate
 Advanced
 Classical Only
 Advanced Classical
 Parks & Rec. Property
 Building
 Lighted Trail
 Skiing Direction
 Fort Wainwright Joint Use License Area

Contour Interval: 10 feet



Park Hours: 8am to 10pm (gate closes at 10)

**Birch Hill Cross Country Ski Center
(BHCCSC) Building Hours:**
Mon-Fri: 12pm to 9pm
Sat: 8am to 6pm
Sun: 10am to 6pm

Cold Weather Policy

BHCCSC will be closed and trail lights shut off when the temperature is -25°F (-31°C) or colder. Trails and Warm-Up Hut will remain open.

Live webcam & realtime weather at
www.nscfairbanks.org

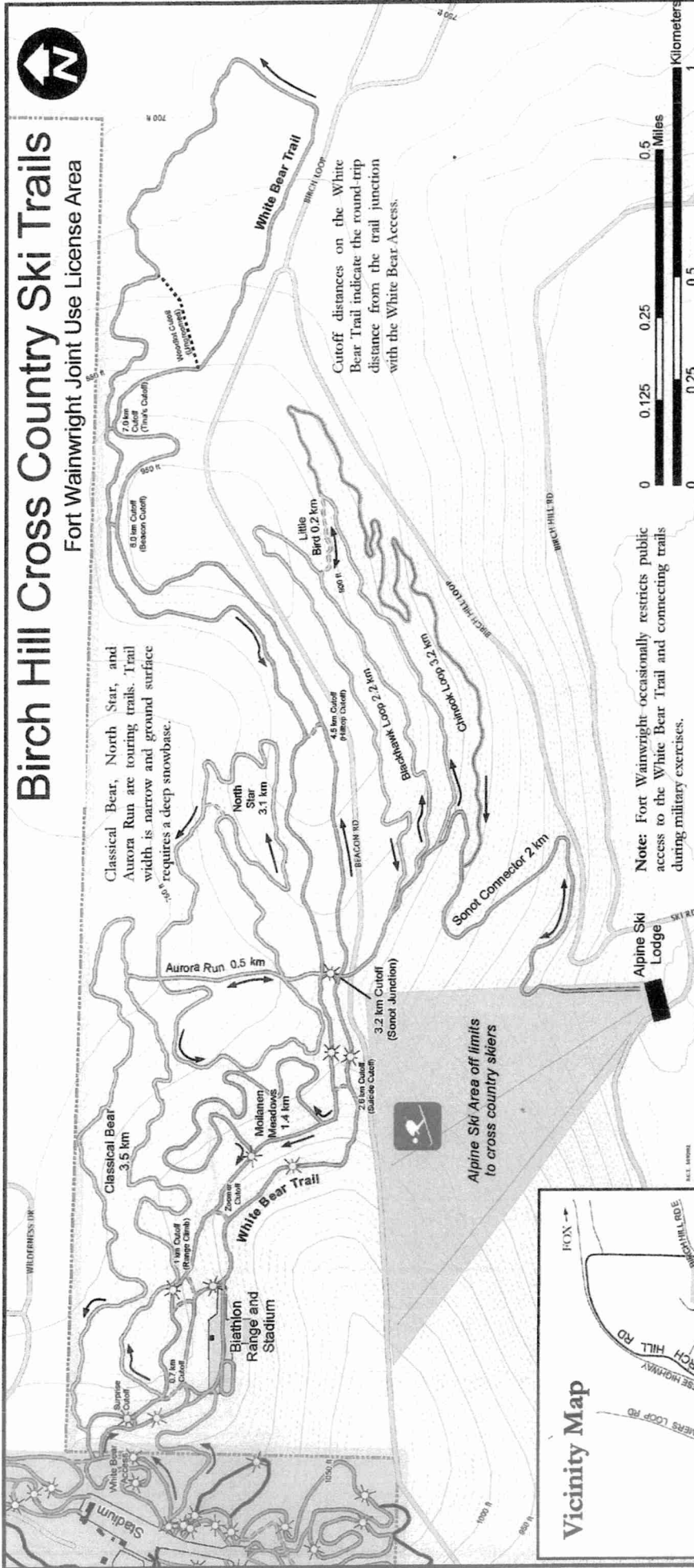
Support Good Tracks

Join the Nordic Ski Club and give to the Birch Hill Trail Fund. Your donation supports trail development, trail improvement, summer maintenance, winter grooming, tracking, and equipment procurement.

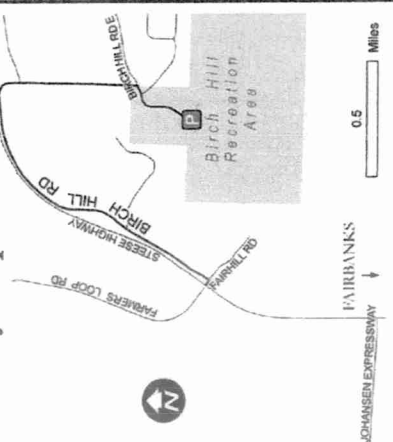
Help the Nordic Ski Club of Fairbanks and the Fairbanks North Star Borough Parks and Recreation Department keep the Birch Hill trail system second to none.

Birch Hill Cross Country Ski Trails

Fort Wainwright Joint Use License Area



Vicinity Map



Trail Information:

- During winter, trails are for cross country skiing only (running, walking, & snowshoeing are prohibited).
- Dogs and other pets are prohibited during ski season.
- Motorized vehicles (snowmachines, ATVs, etc.) prohibited year-round.
- Trails should be skied in the direction indicated by arrows on the map.
- Trail conditions vary with weather and skier use. Be aware and ski with caution.

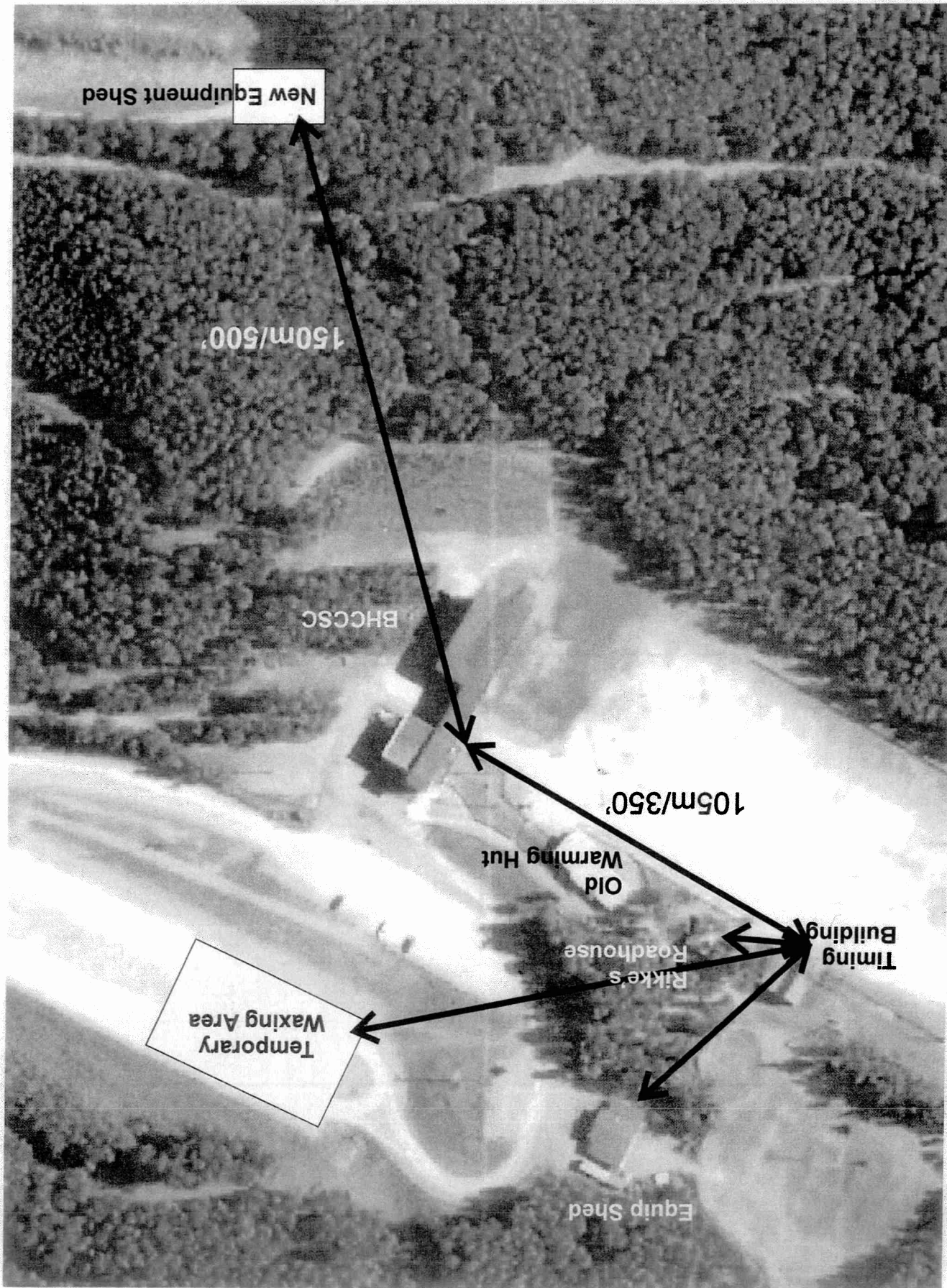
Note: Fort Wainwright occasionally restricts public access to the White Bear Trail and connecting trails during military exercises.

Rules for using trails south of Beacon Road (Sonot Connector, Blackhawk, Chinook & Little Bird):

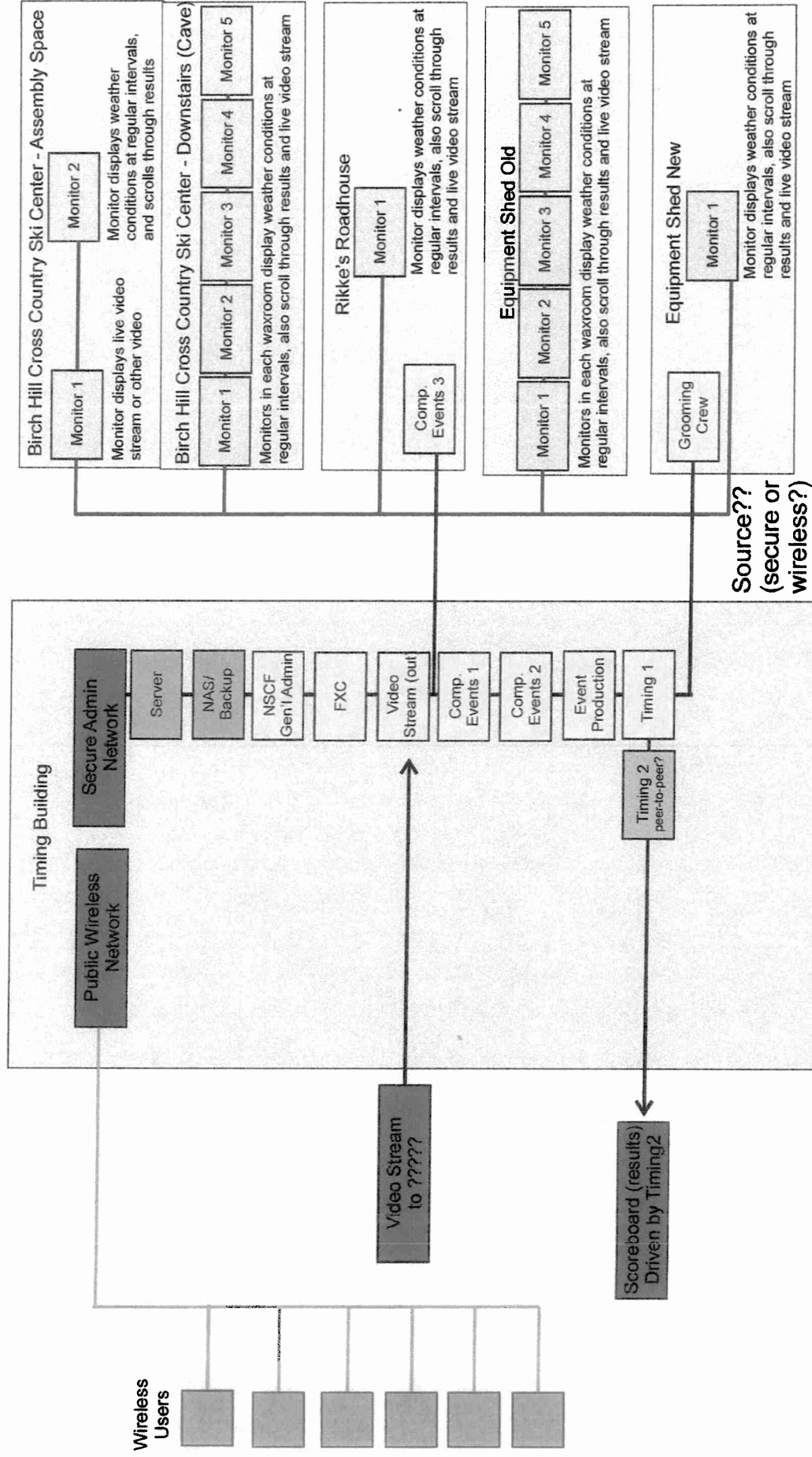
- Adult skiers (17 years and older) must possess identification.
- Access is limited to cross country ski trails identified on this map.
- Areas not identified on the map are off limits.
- Access to Alpine Ski Lodge is permitted.

The Birch Hill Recreation Area Nordic ski trails are maintained by the Nordic Ski Club of Fairbanks. Please contribute to the Birch Hill Trail Maintenance Fund, c/o NSCF, Box 80111, Fairbanks, AK 99708. Your donation ensures continued quality trail grooming.

Birch Hill / NSC Fairbanks Network Area



NSCF- Birch Hill Network



Monitors in BHCCSC Assembly Space can also be used for instructional presentations; need computer to drive this?

Nordic Ski Club of Fairbanks, P.O. Box 80111, Fairbanks, AK 99708 907-474-4242

February 12, 2012

Senator Joe Thomas
AK State Capitol, Room #514
Juneau, AK 99801

RE: Technology Upgrades for the Birch Hill Recreation Area (BHRA) Building Complex

Dear Senator Thomas:

The Board of Directors of the Nordic Ski Club of Fairbanks strongly supports the 2013 Capital Improvement Projects (CIP) Funding Requests made by our club for Technology Upgrades for the Birch Hill Recreation Area (BHRA) building complex.

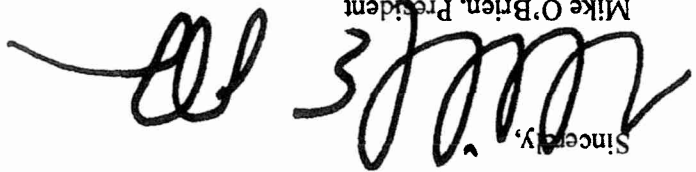
The Nordic Ski Club of Fairbanks (NSCF) partners with the Fairbanks North Star Borough Parks and Recreation Department to maintain the 45-kilometer trail system and facilities at the Birch Hill Recreation Area. The non-profit NSCF works hard to maintain trails to a world-class standard. We also provide an automated administrative network system to deal efficiently with club activities. This involves accounting and recording keeping activities, management of the FXC junior racing program, the Junior and Adult Nordics programs as well as the competitive side of start/results lists, course and weather information and race video.

This technology upgrade will benefit club members and our thousands of Borough residents of all ages. There are over 300 skiers in the club's youth programs this year and several hundred student users from area schools. The club's adult lessons program has had over 800 participants since inception. Community programs and statewide competitions are offered throughout the winter on the Birch Hill trails and facility buildings.

With a significant expansion of trails anticipated in the next few years and the scheduling of major regional and national competitive events, we are eager to improve the capacity and quality of the technology installed at the Birch Hill Recreation Area. This technology upgrade funding will allow us to make major improvements in our hosting of these competitive events as well as in the management of our club activities. Our current equipment is out of date and does not cover the scope and responsiveness of services provided in this upgrade.

Portions of this equipment will also assist the FNSB to establish its backup command center. This service benefits Borough residents of all ages, visitors and the local economy as well as the FNSB Computing Services and EMS divisions. The NSCF Board of Directors urges your support of this capital improvement project funding request.

Sincerely,



Mike O'Brien, President
Nordic Ski Club of Fairbanks



Fairbanks North Star Borough
Parks and Recreation
1920 Lathrop Street PO Box 71267 Fairbanks, Alaska 99707-1267 (907)459-1070 FAX 459-1072

February 13, 2012

Senator Joe Thomas
AK State Capitol, Room #514
Juneau, AK 99801

Dear Senator Thomas:

The Fairbanks North Star Borough (FNSB) Parks and Recreation Department enthusiastically supports the Nordic Ski Club of Fairbanks' (NSCF) 2012 Capital Improvement Project Funding Requests for technology upgrades for the Birch Hill Recreation Area building complex.

The Borough has partnered with NSCF to maintain trails at the Birch Hill Recreation Area and Fort Wainwright Joint Use License Area. The club is a highly professional organization that invests countless hours every season grooming and maintaining approximately 45km of Nordic ski trails to a world-class standard. In addition, they host competitions and administer the Junior and Adult Nordic program.

The club is embarking on a plan to significantly expand and improve the computer network at Birch Hill for the first time in many years. This technology upgrade project will upgrade the computer network capabilities and performance and provide for a much improved administrative, record keeping and racing hardware support system. In preparation for hosting premier events such as the 2013 Junior Olympics and the 2014 Arctic Winter Games, these technology upgrades should allow the NSCF to provide for a greatly improved experience for both the competitors and the general public. Much of this work will be done by volunteers.

The NSCF provides a valuable service to Borough residents and visitors. New and more efficient computer and network equipment will enhance the NSCF's success and ability to continue to attract world class competitions. The FNSB Parks and Recreation Department urges your support of this capital improvement project funding request.

Sincerely,

Michael Bork, Director
Department of Parks & Recreation

cc: Jeff Jacobson, FNSB Chief of Staff



February 13, 2012

Senator Joe Thomas
Alaska State Capitol, room 514
Juneau, AK 99801

Re: NSCF 2013 Legislative Capital Budget Request #1

Dear Senator Thomas:

The FNSB Computer Services Department would like to offer its whole-hearted support for this project. In addition to its stated purpose of providing reliable, high-speed Internet Access for the Nordic Ski Club's events at Birch Hill Recreation Area, this project would have real benefits to FNSB, particularly in our contingency planning and Disaster Recovery plans required under state law.

FNSB currently has one "pipeline" to the Internet, here at the Borough Administration Center. That access, as well as access to the Borough's internal network, is distributed to our other facilities through our Wide Area Network (WAN). That network consists primarily of wireless connections from this building to a radio tower on top of Birch Hill, then on to various other Borough offices throughout the city. Since the Birch Hill tower is the center of our WAN, and it is located a few miles outside of downtown and above the flood plain, we have placed some disk storage equipment, and we regularly (4 times/day) update the data stored there, so that, in case of a disaster at our primary facility, we will have recent backups of all Borough data at the Birch Hill site.

We also have a highly-capable server at this facility, and would, in case of emergency, replicate most of our computer server functions at this location. We are in the process of adding equipment to this facility to enable us to fully recover the remaining Borough server functions for our complete financial operation in the event of catastrophic loss of any or all of the Borough's normal facilities. (The 1967 flood did encompass all of the current FNSB offices.)

This summer, thanks to an earlier State grant, we will connect this tower facility to the Birch Hill Ski Lodge via fiber-optic cable. One provision that we still lack is a fiber connection from the tower back to the nearest fiber connection in town, a considerable distance to a connection with adequate band width. If we lost access through our existing wireless link back to the Borough Administration Center (BAC), with or without the loss of the rest of the facility, many functions would be greatly hampered, as our dependence on the Internet has markedly increased over the past several years.

If a direct fiber internet connection were established to the Birch Hill tower facility, it could be used to service the Borough government's disaster recovery needs, whether the problem involved just our primary Internet access, or a total loss of the BAC facility. This would be a valuable step in our efforts to be thoroughly prepared for a disaster.

Sincerely,

Stephen A. Smith

Network Services Manager

Monday, February 13, 2012

John Estle

255 Wilderness Drive

Fairbanks, Alaska, 99712

To Whom It May Concern:

This letter is to express my support for the **Technology Upgrades for the Birch Hill Recreation Area Facilities** capital improvement projects request.

I am the person whom the Nordic Ski Club of Fairbanks (NSCF) has placed in charge of organizing the major cross country skiing competitions hosted by the NSCF that are held at Birch Hill Recreation Area (BHRA). The NSCF pays me to perform these services.

Cross country ski racing, and the production of cross country ski competitions, has, as is the case with most sports, become increasingly complex over the past several years. For many years it was sufficient to have a reasonably well-prepared course, a few stopwatchs and some clipboards and pencils in order to organize an event; getting the results out a few hours after the competition (or in some cases, much later than that) was in line with expectations.

Now, because of changes in the sport that have made the sport ever more technical and taken advantage of technological advances, the technological aspect of organizing events and event production is a major component of the event.

Ski teams, coaches and wax technicians need, real-time information regarding weather conditions, temperature trends, etc.; coaches and the general spectating public (on-site), equipped with smart phones, expect frequent results updates during the competition; for major national events, mom and dad back East not only expect results updates, but are looking for live video streaming of events. Everyone who is interested in the competition is looking for "instant" updates to websites, Facebook, Twitter and other social media, in the form of data, text and graphics, both still photos and video.

That sort of demand for information requires a robust network with substantial capacity in the form of computer and network hardware and a "big pipe" broadband connection – that's the objective of this CIP request. A network as described in this proposal would enable the NSCF and BHRA to provide the highest quality of service to competitors, coaches, parents and spectators in the form of virtually instantaneous information: in-race rankings, final results, photos and video.

In terms of spectator information, it's the cross country skiing equivalent of the large overhead scoreboard/video board at the Carlson Center – only a lot less expensive. Besides the uses outlined above, this system would also lend itself to educational and information uses that would provide a tangible benefit to the community.

Sincerely,

John Estle

6/4/2011 8:37 PM